

## PHENOLOGY OF SOME MYRMELEONTOID (NEUROPTERA) SPECIES FROM ROCKHAMPTON (CENTRAL QUEENSLAND).

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### Abstract

The seasonal distribution of 18 myrmeleontoid species collected from a light trap in Rockhampton, central Queensland, over a seven year period (1980-1987), are recorded. Comments are made on the voltinism of the species.

### Introduction

There appears to be little information relating to the phenology of Australian Myrmeleontoidea except that recorded incidentally in the recent taxonomic treatments by New (1981, 1982, 1984, 1985 a,b,c). The myrmeleontoid records obtained during seven years of light trapping in Rockhampton, central Queensland are therefore presented.

### Methods

A Robinson style light trap utilizing a Phillips HPL-N 125 watt mercury vapour lamp was run from dusk to dawn on the campus of the Capricornia Institute of Advanced Education, North Rockhampton, for five nights per week, from October 1980 to October 1987. The trap was emptied early in the morning and the Neuroptera identified and counted. Specimens not immediately attributable to species were collected and identified in the laboratory using keys provided by New (1981, 1982, 1984, 1985 a,b,c). Counts were summarised as total individuals per species, per five nights of a standard week (Appendix J, Lewis and Taylor 1967).

### Results

Eighteen species belonging to 3 families were recorded from the light trap. Ascalaphidae were most abundant and Fig. 1 summarises their seasonal distribution. *Suhpalacsa dietrichiae* (Brauer) accounted for approximately 90% of the 325 ascalaphids caught. The flight period of this species covered most of the summer months (Fig. 1) and this species never occurred from weeks 18-47. In most years there was a peak in abundance in early January (week 3) but on occasion, as in 1982/3, this peak did not occur until weeks 7 and 8. In 1982/3, 1985/6 and 1986/7 there appeared to be a second peak in abundance a few weeks after the first. There were marked yearly differences in abundance.

*S. stigmata* New and *S. subtrahens* (Walker) were not as common as *S. dietrichiae* (never more than two individuals per week were recorded) and their flight periods not so prolonged (Fig. 1). *S. stigmata* occurred in December/January and *S. subtrahens* in March/April, although in 1987 the flight period of *S. subtrahens* was several weeks earlier, in February.

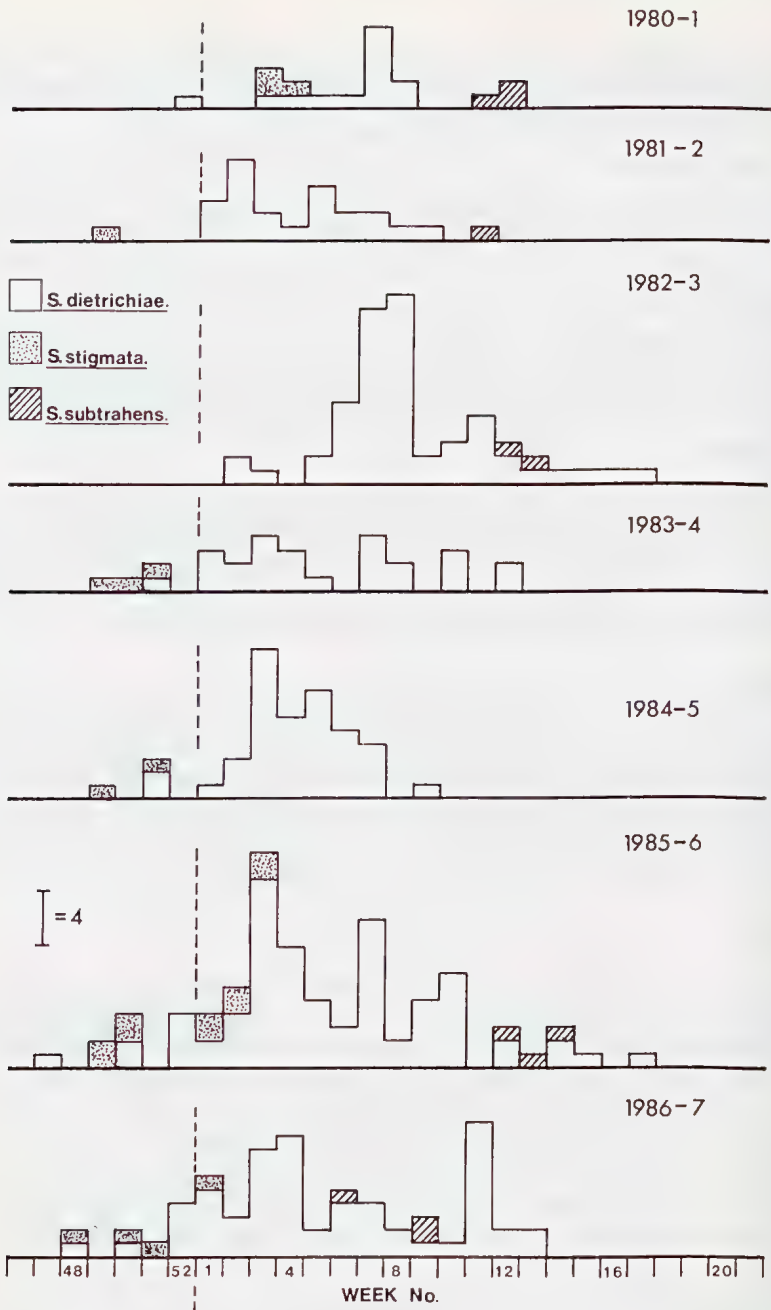


Fig. 1. Yearly seasonal abundance of three Ascalaphid species at Rockhampton, central Queensland, during the period Oct. 1980-Oct. 1987.



Fig. 2. Seasonal abundance of *Distoleon bistrigatus* at Rockhampton, Central Queensland, using pooled capture records for Oct. 1980-Oct. 1987.

Of the non-ascalaphid species, *Distoleon bistrigatus* (Rambur) was the most abundant (Fig. 2). There is some suggestion that there is a peak in abundance in October/November and again in February, perhaps indicating two generations per year. The records for *D. somnolentus* (Gerstaecker), *Glenoleon osmyloides* (Gerstaecker), *G. conspersum* Banks and *Myrmeleon acer* Walker are few (Table 1), but the distribution of captures again suggests a possible two generations per year, although these observations may reflect a long emergence period and long adult life. The records for the remaining species in Table 1 are sometimes sparse, but imply only one generation per year.

Table 1. Pooled records (October 1980-October 1987) by week for some Myrmeleontoid species. All records are single captures, except where indicated otherwise by a number in brackets.

Species	Weeks recorded
Myrmeleontidae	
<i>Bandidus canifrons</i> Navas	2, 50
* <i>Distoleon somnolentus</i> (Gerstaecker)	9, 13, 46, 48, 52
* <i>Glenoleon conspersum</i> Banks	19, 50
* <i>G. dissolutus</i> (Gerstaecker)	14
* <i>G. osmyloides</i> (Gerstaecker)	1, 9, 20, 37, 38
* <i>G. pulchellus</i> (Rambur)	52
* <i>Heoclisis fulvifusa</i> (Kimmins)	1, 2, 5, 8, 10, 18
<i>Myrmeleon acer</i> Walker	12, 13, 14(2), 15, 17, 18, 20, 21, 40(2), 42
* <i>M. pictifrons</i> Gerstaecker	5, 11
<i>Protoplectron venustum</i> (Gerstaecker)	11, 12(3), 16, 18, 19
<i>Pseudofornicaleo nubecula</i> (Gerstaecker)	12, 16
<i>Stilbopteryx walkeri</i> Kimmins	4, 47, 51
Nymphidae	
<i>Nymphes modesta</i> Gerstaecker	13
<i>N. myrmeleonides</i> Leach	2, 6, 9

\* indicates new records for Rockhampton.